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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,565	03/17/2006	Kazushi Torii	12480-000166/US	5063
30593 7590 03/17/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EXAMINER BOYLE, ROBERT C	
			ART UNIT 1796	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/572,565	<b>Applicant(s)</b> TORII ET AL.	
	<b>Examiner</b> ROBERT C. BOYLE	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 1,2,5-19 and 24-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,4 and 20-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-31 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/20/2006, 09/12/2006, 03/17/2006</u>                        | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-2, 5-9, drawn to a water absorbent.

Group II, claim(s) 3-4, 20-23, drawn to a water absorbent.

Group III, claim(s) 10, 12-13, 15-19, 29-30, drawn to a method of producing a water absorbent.

Group IV, claim(s) 11, 14, 24-28, 31, drawn to a method of producing a water absorbent.

2. The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

3. Firstly, it is noted that the water absorbents of claims 1 and 3 in Groups I and II, respectively, have different characteristics at the very least with respect to CRC and chemical cross-linking index and the processes of claims 10 and 11 in Groups III and IV, respectively, differ with respect to the scope of the cross-linking polymerization of a monomer.

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4. Secondly, the common technical feature of “a water absorbent comprising water-absorbing particles which are surface cross-linked and prepared from a water-absorbing resin having a cross-linked structure prepared by polymerizing a monomer including at least acrylic acid or its salt” is found in the prior art. Dairoku et al., U.S. Patent Application Publication 2002/0040095 discloses water absorbents and the formation of the absorbents from water-absorbent resins of acrylic acids or their salts which are surface cross-linked (abstract; paragraphs 0014, 0017, 0092, 00124-124).

5. Since the common technical feature does not amount to a special technical feature, there is a lack of unity.

6. During a telephone conversation with DONALD DALEY on March 5, 2009 a provisional election was made WITHOUT traverse to prosecute the invention of Group II, claims 3-4 and 20-23. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-2, 5-20, and 24-31 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

8. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are

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subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

### ***Double Patenting***

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

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obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 3-4 and 22-23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9-11 of copending Application No. 11/540,478. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications teach an absorbent of polyacrylic acid which is surface cross-linked and overlapping SFC values. It would have been obvious to one of ordinary skill that the water content in either absorbent would be less than 5% and that the amount of residual monomers would be close to 0%.

Claims 3-4, 22-23 are directed to an invention not patentably distinct from claims 9-11 of commonly assigned Application No. 11/540,478. Specifically, see above discussion.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP

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Chapter 2300). Commonly assigned Application No. 11/540,478, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Claims 3-4 and 21-23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 10/593,706. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications teach an absorbent of polyacrylic acid which is surface cross-linked and have overlapping SFC values and an absorption rate can match values of absorption rate and flow conductivity in the instant application.



Claims 3-4, 21-23 are directed to an invention not patentably distinct from claim 1-5 of commonly assigned Application No. 10/593,706. Specifically, see above discussion.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned Application No. 10/593,706, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claims 3-4 and 22-23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 and 17 of

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copending Application No. 10/577,355. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications teach a particulate absorbent of a cross-linked polymer with particle size in the range of 150-850 micrometers. It would have been obvious to one of ordinary skill in the art that the polyols recited in claim 1 of 10/577,355 are surface cross-linkers.

Claims 2-4, 22-23 are directed to an invention not patentably distinct from claim 1-12 and 17 of commonly assigned Application No. 10/577,355. Specifically, see above discussion.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned Application No. 10/577,355, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 3-4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitmore et al., U.S. Patent 6,417,425.

15. As to claims 3-4, Whitmore teaches absorbent articles made from surface cross-linked polymer particles of acrylic acid monomers where the particles have a size of 60-1000 microns, an AAP value of at least about 21.9 when the CRC is 22 (abstract; column 3, lines 8-22; column 4, line 61-column 5, line 65; column 7, lines 62-67; column 8, line 4-column 9, line 32; column 17, lines 14-58; column 22, line 53-column 23, line 42).

16. Claims 3 and 4 state properties of the water absorbent: the chemical cross-linking index as defined by claim 3. While Whitmore does not elaborate on the property, Whitmore teaches essentially the same composition and process as that of the claimed, and one of ordinary skill in the art would have a reasonable basis to believe the water absorbent of Whitmore exhibits essentially the same properties. Since the PTO cannot

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conduct experiments, the burden of proof is shifted to the applicants to establish an unobvious difference. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

17. Even if properties of the water absorbent of the instant claims and the prior art examples are not the same, it would still have been obvious to one of ordinary skill in the art to make a water absorbent having the claimed properties because it appears that the references generically embrace the claimed water absorbent and one of ordinary skill in the art would have expected all embodiments of the reference to work.

Applicants have not demonstrated that the differences, if any, between the claimed water absorbent and the prior art give rise to unexpected results.

18. Whitmore does not teach the logarithmic standard deviation of the particle size distribution. It is the examiner's position that this is a result effective variable because changing it will clearly affect the type of product obtained. See MPEP 2144.05(B). Case law holds that "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In view of this, it would have been obvious to one of ordinary skill in the art to utilize a particle size distribution within the scope of the present claims so as to produce desired end results.

19. As to claim 20, Whitmore teaches using phosphate monomers (column 4, lines 12-42).

20. Claims 3-4 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima et al., International Application Publication WO/02/100451.

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21. As to claims 3-4 and 20-22, Nakashima teaches surface cross-linked polyacrylic acids with particle size of 150-850 microns, an AAP of not less than 24 g/g, a CRC of not less than 25.8 g/g and an SFC of not less than 20, which optionally contain a phosphorus atom and inorganic powders that can act as a liquid permeability improver (abstract; page 7, line 4-page 10, line 16; page 12, lines 7-27; page 13, lines 1-24; page 14, line 24-page 15, line 15; page 27, lines 1-13; page 31, line 35-page 34, line 20; page 39, lines 2-13; page 40, lines 1-10; page 42, line 24- page 43, line 18; page 44, line 25-page 46, line 6; page 52, lines 1-24; page 86, table 1; page 87, table 2).

22. The range of SFC taught by Nakashima overlaps the range recited in claims 21-22. It is well settled that where prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See MPEP 2144.05; *In re Harris*, 409, F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 3d 1379, 1382 (Fed. Cir 1997); *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

23. Claims 3 and 4 state properties of the water absorbent: the chemical cross-linking index as defined by claim 3. While Nakashima does not elaborate on the property, Nakashima teaches essentially the same composition and process as that of the claimed, and one of ordinary skill in the art would have a reasonable basis to believe the water absorbent of Nakashima exhibits essentially the same properties. Since the PTO cannot conduct experiments, the burden of proof is shifted to the applicants to

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establish an unobvious difference. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

24. Even if properties of the water absorbent of the instant claims and the prior art examples are not the same, it would still have been obvious to one of ordinary skill in the art to make a water absorbent having the claimed properties because it appears that the references generically embrace the claimed water absorbent and one of ordinary skill in the art would have expected all embodiments of the reference to work.

Applicants have not demonstrated that the differences, if any, between the claimed water absorbent and the prior art give rise to unexpected results.

25. Nakashima does not teach the logarithmic standard deviation of the particle size distribution. It is the examiner's position that this is a result effective variable because changing it will clearly affect the type of product obtained. See MPEP 2144.05(B). Case law holds that "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In view of this, it would have been obvious to one of ordinary skill in the art to utilize a particle size distribution within the scope of the present claims so as to produce desired end results.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT C. BOYLE whose telephone number is (571)270-7347. The examiner can normally be reached on Monday-Friday, 9:00AM-5:00PM Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. C. B./  
Examiner, Art Unit 1796

/Vasu Jagannathan/  
Supervisory Patent Examiner, Art Unit 1796